

TO: Directors & Managers

DATE: May 27, 1970

FROM: H. Wakeham

SUBJECT: Guidelines on Patent Policy for R&D

INTRODUCTION

Patents and trademarks fall under the general category of industrial property rights along with such other assets as know-how, designs and copyrights. A patent represents temporary but exclusive permission from the state to exclude or control others in the practice or utilization of a specific invention or discovery. In the United States the exclusivity lasts for 17 years from date of issue of the patent whether or not the patent owner exercises his rights.

A trademark is a work, name, or symbol used to identify a manufactured product and to distinguish it from the products of other manufacturers. In the United States a trademark used in interstate commerce can be registered with the federal government for an initial period of 20 years, with indefinite renewals for additional periods of 20 years each. Registration affords protection against another's use of the same or a similar mark but does not by itself give exclusive ownership. Trademark rights have to be earned by continuing proper use and protection, but once earned and protected by proper use, trademark rights last as long as desired while rights under patents or copyrights extend for only a limited period of time.

It is clear from the above that trademarks are quite different from patents and that questions and decisions regarding trademarks cannot be tied together with any discussion of patents or patent policy. The following discussion relates only to patents.

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PATENTS AS VALUABLE PROPERTY

Variations in national laws, business practices, and economic conditions have a direct bearing on the essence of any patent so far as its nature and value as a property is concerned.

As a result, patent practice, especially in international areas, is a complicated matter requiring careful study prior to decision making. Good patent management requires information for decisions from virtually all departments: finance, research and development, legal, production, marketing, and long-range planning.

Patent management must deal with three major topics:

1. Decision to file and, if so, where.
2. Maintenance of patent rights.
3. Utilization of patent systems to further business interests.

In each area the procedure is superficially simple: the alternative courses of action are analyzed, their costs estimated, the profitability of each to the corporation as a whole is weighted, and the proper choice is automatically revealed.

In practice, or course, each of these steps can be very complicated.

Patents represent valuable company assets which have been found to be an important factor in the growth of American industry. The following reasons why companies should obtain patents have been given:

1. To protect new developments for future commercial use.
2. To protect current commercial operations and products.
3. To provide a legal basis for granting licenses to others, thus enabling them to benefit by the discovery.
4. To create a legal asset which may be used in place of royalties or other money consideration in negotiating licenses with others.

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5. To provide publication to increase the public knowledge and promote the progress of the industry.
6. To avoid the necessity for secrecy.

Three examples in our own corporate experience will suffice to illustrate the importance of patent protection:

1. The patent position and technical know-how of American Machine & Foundry have made it necessary for us to pay them during the past years a total of approximately two million dollars in royalties for our present BL process. Our royalty costs are still running at the rate of about \$140,000 per year.
2. The high development cost (in excess of \$600,000) and the high initial investment (approximately 11 million dollars) justified our seeking the broadest possible patent protection for our plastic package throughout the world. Although the cost of this protection approached \$50,000, this sum is negligible in terms of the total investment and represents a small price to pay for protection insurance.
3. After the American Tobacco Company introduced Montclair cigarettes we learned they were attempting to obtain a patent on the principle of using carbon in a cigaret filter as a means of introducing flavor components into smoke. Since we also had inventions along this line, we quickly filed patent applications of our own and established an "interference" in the U.S. Patent Office with the American application. As a result we were able to obtain a world-wide royalty-free license to use this product idea for ourselves. In fact, had our investigation corresponded a little more closely to American's, our prior invention dates would have enabled us instead of American to obtain the patent. In this case we would have been in a position to prevent American from manufacturing Montclairs or to extract a royalty payment from them.

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() The "insurance value" and/or "defensive value" of a patent is an aspect of research and development that is frequently overlooked. Inherent in allocation of funds for research is the assumption that something of commercial value will result. Patent protection in general will have a bearing on that value. It may be stated that as a general rule in American industry a successful patent comes from an average of at least \$250,000 or more in research and development. Our own experience is in this vein. During the past five years Philip Morris R & D has made significant progress in presenting disclosures to our patent attorneys from which a significant number of patent applications have been filed. It costs approximately \$3,700 to prepare and file an average patent application in the United States. Our R & D program should be sufficiently productive to generate approximately 25 applications a year for a total cost of about \$92,500. This sum is exclusive of foreign filings. It represents only about 1.5% of the R & D cost and again may be considered a cheap insurance against the possible loss of R & D results to our competitors.

PATENTS AND SECRECY

() The alternative to obtaining a patent to protect our know-how is secrecy. The use of secrecy as a means of protection is rapidly diminishing. Many new and efficient methods of communication are now available to us to learn about our competitors' business. Analytical tools are becoming increasingly sophisticated, permitting us to analyze test market samples and products of our competitors with great rapidity and accuracy. (Of course, these methods are similarly useful to our competitors in finding out what we are doing.) Finally, the large number of people in our organization who of necessity require access to confidential information makes for greater frequency of information leaks and the smaller likelihood

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that we can protect our know-how by means of secrecy.

Sometimes one has to resort to secrecy because it is not possible to obtain patent protection. This situation may occur when there is a great deal of prior art and a patent application is rejected. In other cases, such as with some processing innovations, it might be virtually impossible to find out if a competitor is infringing a patent because we do not have access to his factories. If a patent cannot be "policed" it may not have protective value. Secrecy with all its drawbacks may then give better protection to our know-how in this situation.

In summary, Philip Morris has recognized that patents are of value to the Company. This fact is daily confirmed by our actions in (1) requiring all new employees to sign an invention assignment agreement; (2) retaining an outside legal firm to assist in the acquisition of patents; (3) maintaining a patent officer in the Research and Development Department; (4) using patents consistently to protect our position in areas of greatest benefit and value to us.

WHAT TO PATENT

Since our primary business is in the United States and since the application of a patent in the United States gives us a one-year lead time in patent applications in foreign countries subscribing to the International Patent Convention, our initial decision must be on whether or not to file in this country. Every disclosure being submitted to our patent attorney should go through an initial screening process at R & D which answers certain fundamental questions and which permits it to be classified as falling into one of three situations:

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- (a) The invention is commercially important and may be patentable. In this situation a patent application should be filed, even though patentability may be doubtful. The Patent Office has often allowed claims we thought might be rejected.
- (b) The work is commercially unpromising but appears to be patentable. In this case we should file in most instances in the United States because it is hard to predict whether or not the current situation with respect to commercial application will pertain in the future.
- (c) The work is commercially unpromising and appears to be unpatentable. In this case no patent application should be filed.

() The classification and evaluation of a disclosure requires consideration of the following questions:

1. Is the invention broad or is it limited to very narrow specific conditions?
2. How much investment or effort will be required to use it commercially?
3. How close is it to the Company's business or business philosophy?
4. What sales and profits can be anticipated from the successful pursuit of the patent?
5. What effect will the patent disclosure or the obtaining of patent rights have on our competitors?

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6. What opportunities might occur for licensing the patent know-how to other companies?
7. How does the expense of obtaining a patent and maintaining it compare with the benefits to be obtained?
8. If a patent is obtained, can it be policed against infringement?

With answers to these questions, the decisions to file in either the United States or in foreign countries are much more easily made. Our experience and practice lead to the following general principles for patent filing decisions:

1. We will seek patents on those inventions which are directly related to our current or clearly contemplated business.
2. We will seek patents on inventions related to competitive business provided such a move shows reasonable promise of protecting our freedom of action in a vital sphere of interest. For example, a competitive process for making a reconstituted tobacco sheet might be patented for defensive purposes even though we do not at present contemplate using the process.
3. We will seek patents on inventions not included in the above but which show reasonably good licensing potential.
4. We will not seek patents on inventions which involve essentially laboratory equipment and devices (gadgets). Our position with respect to these will be protected by publication in technical journals, thereby barring others from excluding us from the right to use the invention.
5. We will not attempt to patent inventions which cannot be policed by methods which are reasonable in the light of our current technology; that is, we must be able to prove patent infringement.

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6. We will not attempt to patent inventions which relate to areas in which our knowledge is limited. For example, in our exploration of electrostatic filters we have some inventions which may relate to storage and retrieval of information. The probability of obtaining successful patents in these areas is very low because of our lack of knowledge of this field. It is not practical for us to spend time and effort studying these fields out just to obtain a patent position. Our efforts can be better directed into areas in which we are expert.

WHEN TO PATENT

In general it is desirable to file a patent application at the earliest possible date. This is particularly true now that the U.S. Patent Office has decided to place much greater emphasis on the filing date than on the date of invention as proven by laboratory notebooks, etc., in making a decision on the existence of an interference. In many foreign countries the filing date is the only date which will be considered in establishing precedence over another inventor. Some inventions with great potential commercial value should be filed for patent application "constructively," that is, without waiting for demonstrated laboratory "reduction to practice," just to obtain as early a filing date as possible if it is certain the invention will be operable. It is always best to actually "reduce the invention to practice" in order to obtain an insight into the best way to operate the invention and into some of the limits of the invention.

A decision to file in foreign countries should be made within six months of the date of filing in the United States. Countries subscribing to the International Patent Convention will

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accept the date of U.S. filing as an invention date if filing is made within one year after the U.S. filing. This arrangement gives the inventor a time advantage but necessitates an early decision since foreign filing may take some time in preparation and execution. In former times, when a first action by the U.S. Patent Office on new filings was fairly prompt, it was possible to wait at least until a first action had been taken by the U.S. Patent Office before deciding whether or not to file in a foreign country. The heavy burden now on the U.S. Patent Office does not permit this kind of wait, so that we no longer have the reaction of our own patent office to guide us as to whether or not foreign patents are likely to be obtained.

The speed with which foreign applications are processed and published should be taken into consideration in any decision on foreign filing. If it is desired not to have the patent material made public until the latest possible date, it may be wise to hold off filing in countries where early publication occurs, such as South Africa and Belgium.

WHERE TO FILE

The recognition of an invention which pertains to our business or which may prove to be of value to Philip Morris as a merchandise or licensing item is usually sufficient justification to apply for a U.S. patent. The considerations of this sort have already been outlined in the section on "What to Patent."

The selection of foreign countries in which application is to be made is a much more complicated matter. A proper decision of whether or not to seek foreign patent protection should be based on expected return or on imputed value of the patent.

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() In order to arrive at such a value, certain broad categories must be surveyed, such as the competition, production and marketing costs, contribution of the item to the art, international economics developments, likelihood of licensing or interfering, and long-range plans. A careful and detailed study of each patentable item with reference to each of these variables and to each national scene is clearly beyond the practical capability of most companies. Consequently patent managers have usually adopted the rule of thumb to "patent where significant sales are indicated and/or where manufacture will or might take place." This practice has been followed in our own company wherein the Patent Committee has set up categories of countries where we are manufacturing or doing business as per the following list:

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List of Foreign Countries for Filing
Philip Morris Patents
As of May 1970

	GROUP I For Protection of Subsidiaries (Present and Future)	GROUP II For Protection of Licensees (Present and Future)	GROUP III Major Export Markets not in Groups I and II
	Canada		
Europe and Africa	Switzerland Nigeria Holland Belgium Great Britain Germany	Austria Finland France Italy	Azores British Gibraltar Canary Islands Denmark Iceland Iran Ireland Israel Luxemburg Madeira Malta Morocco Netherlands Norway Poland Portugal Spain Sweden Yugoslavia Turkey
Latin America	Argentina Dominican Republic Guatemala Mexico Puerto Rico Venezuela	Aruba Bolivia Panama	Bahamas Barbados Bermuda Brazil British Honduras Chile Columbia Costa Rica Ecuador El Salvador French Guiana French West Indies Greenland (Military) Guyana Haiti Honduras Jamaica Leeward & Windward Is. Netherland Antilles Nicaragua

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List of Foreign Countries for Filing

Philip Morris Patents

As of May 1970

(Continued)

GROUP I For Protection of Subsidiaries (Present and Future)		GROUP II For Protection of Licensees (Present and Future)	GROUP III Major Export Markets not in Groups I and II
			Paraguay Peru Surinam Trinidad & Tobago Uruguay Virgin Islands
Pacific (Far East)	Australia	Hong Kong	Burma
	India	Philippines	French Pacific Islands
	Malaysia		Guam
	New Zealand		Indonesia
	Pakistan		Japan
	Singapore		Korea
			Nepal
			Okinawa
			Samoa
			Taiwan
			Thailand
			Viet Nam
			Laos
			Cambodia
Tropical Africa			Burundi
			Cameroons
			Cape Verde
			Central Africa Rep.
			Congo
			Dahomey
			Gambia
			Guinea
			Kinshasa
			Liberia
			Mauritania
			Portuguese Guinea
			Rep. of Ivory Coast
			Senegal
			Sierre Leone
			Spanish Africa
			Togo
			Volta

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Inherent in this type of catalog approach is the possibility of missing the boat. Conditions may change rapidly. A given invention may not fit the pattern precisely and the Patent Committee may become locked into the format rather than use it as an accessory. This list of countries should be revised frequently with adequate consideration for the long-range plans of Philip Morris International.

MAINTAINING PATENTS

The patent management group, in addition to deciding about what, when, and where to file, should concern itself with two additional tasks relating to the maintenance of the patent portfolio: (1) Review the patent portfolio periodically to ascertain if taxes, fees, or annuities should be paid to keep the patent in force; (2) Police the existing patents to catch and stop infringements. While much of this work can be handled by patent counsel, they must rely on information from varying departments at various levels to keep them up-to-date with respect to patent maintenance and infringements. Good communication lines are the key to success in this effort.

CONCLUSIONS

1. A well developed patent position represents a valuable asset to Philip Morris Incorporated and proper steps to improve this position are worthy of the effort and expense required.
2. First and most important of these steps involves an evaluation of the invention in terms of the business position of the company.
3. Foreign filings should also be decided on the basis of business potential even though the evaluation may be considerably more difficult to make than that of the domestic situation.

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